compound is defined by [the following general formulas] formula I, II, or III:

$$(LR_k)_z[LR_{k\text{-}f}(R^IOSiR''_3)_f]_xMX_y \qquad\text{I,}$$

$$
\begin{array}{c}
L_{\phantom{}}(R^IOSiR^{II}_3)_a(R)_{k\text{-}a\text{-}1} \\
\\
(R)_d\\
\quad Q_m \qquad\qquad M \begin{array}{c} X \\ \\ X \end{array} \\
(R^{II}_3SiOR^I)_c \\
\\
L\,(R^IOSiR^{II}_3)_b(R)_{k\text{-}b\text{-}1}
\end{array}
\qquad\text{II, or}
$$
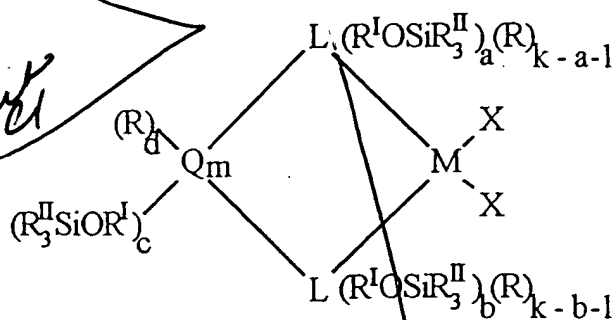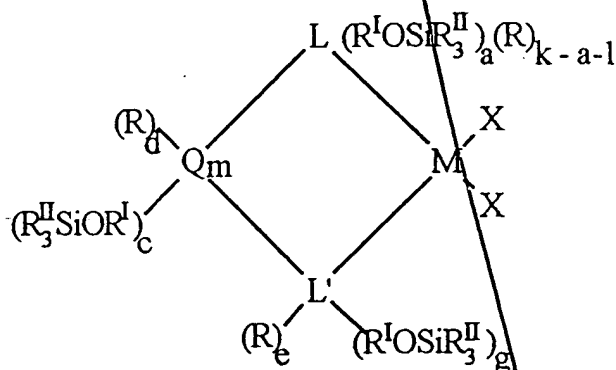
$$
\begin{array}{c}
L\,(R^IOSiR^{II}_3)_a(R)_{k\text{-}a\text{-}1} \\
\\
(R)_d\\
\quad Q_m \qquad\qquad M \begin{array}{c} X \\ \\ X \end{array} \\
(R^{II}_3SiOR^I)_c \\
\\
L' \\
(R)_e \quad (R^IOSiR^{II}_3)_g
\end{array}
\qquad\text{III,}
$$

wherein:

the **L** groups are[,] equal to or different from each other, <u>wherein each L is selected from the group</u> [comprising:] <u>consisting of</u> cyclopentadienyl, indenyl, tetrahydroindenyl, fluorenyl, octahydrofluorenyl<u>, and</u> [or] benzoindenyl;

each **R** is independently [selected from] hydrogen, <u>linear or branched</u> $C_1$-$C_{20}$ alkyl, <u>linear or branched</u> $C_3$-$C_{20}$ cycloalkyl, <u>linear or branched</u> $C_6$-$C_{20}$ aryl, <u>linear or branched</u> $C_3$-$C_{20}$ alkenyl, <u>linear</u>

or branched $C_7$-$C_{20}$ arylalkyl, linear or branched $C_7$-$C_{20}$ alkylaryl,

linear or branched $C_8$-$C_{20}$ arylalkenyl, [linear or branched,

optionally substituted by 1 to 10 halogen atoms,] or a group

$SiR^{II}_3$, wherein the $C_1$-$C_{20}$ alkyl, the $C_3$-$C_{20}$ cycloalkyl, the $C_6$-$C_{20}$

aryl, the $C_3$-$C_{20}$ alkenyl, the $C_7$-$C_{20}$ arylalkyl, the $C_7$-$C_{20}$ alkylaryl,

and the $C_8$-$C_{20}$ arylalkenyl are optionally substituted with 1 to 10

halogen atoms;

the [each] $R^I$[,] groups are equal to or different from each other,

wherein each $R^I$ is a divalent aliphatic or aromatic hydrocarbon

group containing from 1 to 20 carbon atoms, optionally containing

from 1 to 5 heteroatoms of groups 14 to 16 of the [periodic table]

Periodic Table of the [elements] Elements, and optionally

containing boron; [preferably it is: $C_1$-$C_{20}$ alkylene, $C_3$-

$C_{20}$cycloalkylene, $C_6$-$C_{20}$ arylene, $C_7$-$C_{20}$ alkenyl, $C_7$-$C_{20}$ arylalkylene,

or alkylarylene, linear or branched, or a group $SiR^{II}_2$;]

each $R^{II}$ is independently [selected from] linear or branched $C_1$-$C_{20}$

alkyl, linear or branched $C_3$-$C_{20}$ cycloalkyl, linear or branched $C_6$-

$C_{20}$ aryl, linear or branched $C_3$-$C_{20}$ alkenyl, linear or branched $C_7$-

$C_{20}$ arylalkyl, linear or branched $C_8$-$C_{20}$ arylalkenyl, or linear or

branched $C_7$-$C_{20}$ alkylaryl[, linear or branched; preferably $R^{II}$ is

methyl, ethyl or isopropyl];

each $Q$ is independently [selected from] B, C, Si, Ge, or Sn;

$M$ is a lanthanide, an actinide, or a metal of group 3, 4, or 10 of

the Periodic Table[, Lanthanide or Actinide] of the Elements, and

$M$ has a valence;

each $X$ is independently [selected from:] hydrogen, chlorine,

bromine, $OR^{II}$, $NR^{II}_2$, $C_1$-$C_{20}$ alkyl, or $C_6$-$C_{20}$ aryl ;

$L'$ is N or O;

when $L$ is cyclopentadienyl, $k$ is equal to 5[,]; when $L$ is indenyl,

$k$ is equal to 7[,]; when $L$ is fluorenyl or benzoindenyl, $k$ is

equal to 9[,]; when $L$ is tetrahydroindenyl, $k$ is equal to 11; and

when **L** is octahydrofluorenyl, **k** is equal to 17;

**z** is equal to 0, 1, or 2;

**x** is equal to 1, 2, or 3;

**y** is equal to 1, 2, or 3;

**x** + **y** + **z** is equal to the valence of **M**;

**m** is [an integer which can assume the values] <u>equal to</u> 1, 2, 3 or 4;

**a** [and **b** are integers] <u>is an integer</u> whose value ranges from 0 to **k**-1;

<u>**b** is an integer whose value ranges from 0 to **k**-1;</u>

**f** is an integer whose value ranges from 1 to **k**;

**g** is [an integer whose value ranges from] <u>equal to</u> 0 to 1;

**c** [and **e** are] <u>is</u> equal to 0 or 1;

<u>**e** is equal to 0 or 1;</u>

**a** + **b** + **c** is at least 1;

**a** + **g** + **c** is at least 1;

**d** is equal to 0, 1, or 2;

when **Q** is B, then **c** + **d** = 1;

when **Q** is C, Si, Ge, or Sn, then **c** + **d** = 2;

when **L'** is N, then **g** + **e** = 1; <u>and</u>

when **L'** is O, then **g** = 0 and **e** = 0.

2.    (amended once)    <u>A heterogeneous</u> [Heterogeneous] catalytic *Composition* [system] according to claim 1 wherein the group $R^I OSiR^{II}_3$ is [selected from] $CH_2-CH_2-OSiMe_3$, $CH_2-CH_2-CH_2-OSiMe_3$, $CH_2-O-CH_2-OSiMe_3$, $O-CH_2-CH_2-OSiMe_3$, $SiMe_2-CH_2-CH_2-OSiMe_3$, $SiMe_2-OSiMe_3$, or $SiMe_2-CH_2-CH_2-CH_2-OSiMe_3$.
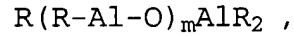
3.    (amended twice)    <u>A heterogeneous</u> [Heterogeneous] catalytic *Composition* [system] according to claim 1 wherein M is titanium, zirconium, or hafnium.

4.    (amended twice)    A heterogeneous [Heterogeneous] catalytic

*C    Composition*

~~system~~ according to claim 1 wherein the alumoxane is represented
by [the formulas] a formula:
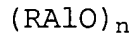
$$(RAlO)_n \qquad\qquad \text{or} \qquad\qquad R(R\text{-}Al\text{-}O)_mAlR_2 \, ,$$

wherein **R** is an alkyl or an aryl group containing from 1 to 20
carbon atoms; **n** ranges from 1 to 40[,]; and **m** ranges from 3 to 40.


5.    (amended twice)    A heterogeneous catalytic [Heterogeneous

~~catalyst~~    *Composition*    ~~system~~ according to claim 1 wherein the inorganic
support is
selected from the group consisting of silica, alumina, silica
alumina, aluminum phosphates, and mixtures thereof.


6.    (amended twice)    A heterogeneous catalytic [Heterogeneous

catalyst]    *Composition*    ~~system~~ according to claim 1 comprising a transition

metal, wherein [the content in] the transition metal [is
comprised] comprises between 0.01 and 3% by weight of the catalyst
~~system~~.


7.    (amended twice)    A heterogeneous catalytic [Heterogeneous

*C*    catalyst]    ~~Composition~~ according to claim 6 wherein the [content in]
                          ^
transition metal [is comprised] comprises between 0.1 and 1% by
                                        *Composition*
weight of the catalyst ~~system~~.


8.    (amended twice)    A process [Process] for [the] polymerization
of alpha olefins in a slurry or in a gas phase, [characterized by]
wherein the polymerization is catalyzed by [the use of] the
                                  *Composition*
heterogeneous catalyst ~~system~~ of claim 1.
                          ^

Please add the following new claims.

--11. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 1, wherein each $R^I$ is linear or branched $C_1$-$C_{20}$ alkylene, linear or branched $C_3$-$C_{20}$ cycloalkylene, linear or branched $C_6$-$C_{20}$ arylene, linear or branched $C_7$-$C_{20}$ alkenyl, linear or branched $C_7$-$C_{20}$, linear or branched arylalkylene, linear or branched alkylarylene, or a group $SiR^{II}_2$.
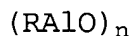
12. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 1, wherein $R^{II}$ is methyl, ethyl, or isopropyl.

13. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 12, wherein $R^{II}$ is methyl, ethyl, or isopropyl.
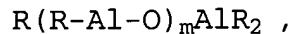
14. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 2, wherein M is titanium, zirconium, or hafnium.

15. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 13, wherein M is titanium, zirconium, or hafnium.

16. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 2, wherein the alumoxane is represented by a formula:
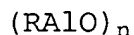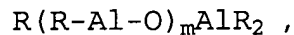
$$(RAlO)_n \qquad \text{or} \qquad R(R\text{-}Al\text{-}O)_m AlR_2 ,$$

wherein R is an alkyl or an aryl group containing from 1 to 20 carbon atoms; n ranges from 1 to 40; and m ranges from 3 to 40.

17. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 3, wherein the alumoxane is represented by a formula:

$$(RAlO)_n \qquad \text{or} \qquad R(R-Al-O)_m AlR_2 \,,$$
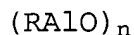
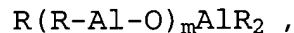wherein **R** is an alkyl or an aryl group containing from 1 to 20 carbon atoms; **n** ranges from 1 to 40; and **m** ranges from 3 to 40.

17. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 12, wherein the alumoxane is represented by a formula:

$$(RAlO)_n \qquad \text{or} \qquad R(R-Al-O)_m AlR_2 \,,$$

wherein **R** is an alkyl or an aryl group containing from 1 to 20 carbon atoms; **n** ranges from 1 to 40; and **m** ranges from 3 to 40.

18. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 2, wherein the inorganic support is selected from the group consisting of silica, alumina, silica alumina, aluminum phosphates, and mixtures thereof.

19. A heterogeneous catalytic Composition ~~system~~ as claimed in Claim 3, wherein the inorganic support is selected from the group consisting of silica, alumina, silica alumina, aluminum phosphates, and mixtures thereof.

20. A process for polymerizing a monomer or a mixture of a monomer and a comonomer, wherein the process comprises: contacting the heterogeneous catalytic Composition ~~system~~ claimed in Claim 1 with the monomer or the mixture to polymerize the monomer or the mixture. --